FIG. 1

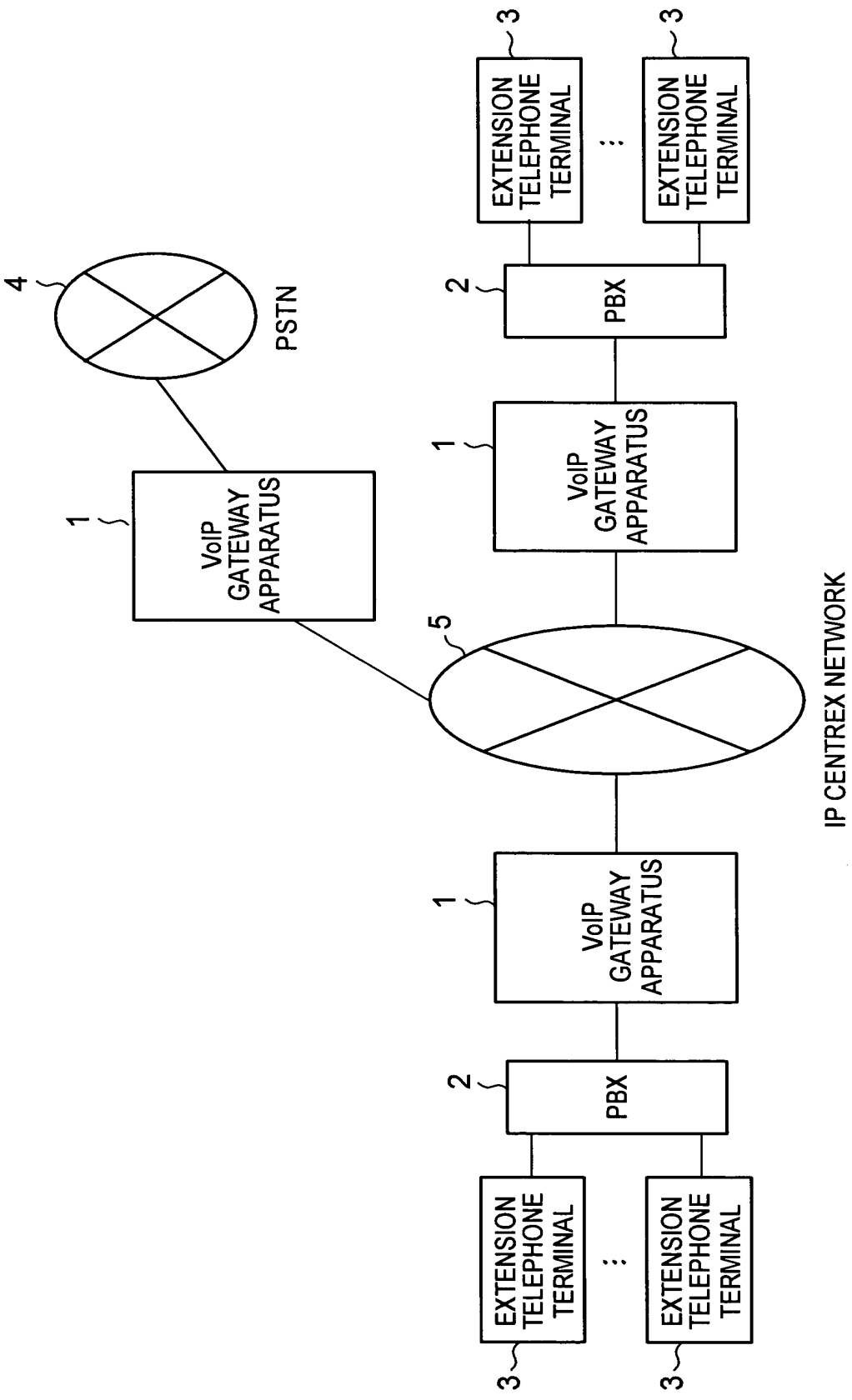

4
PSTN
1
VoIP GATEWAY APPARATUS
5
1
VoIP GATEWAY APPARATUS
2
PBX
3
EXTENSION TELEPHONE TERMINAL
3
EXTENSION TELEPHONE TERMINAL
1
VoIP GATEWAY APPARATUS
2
PBX
3
EXTENSION TELEPHONE TERMINAL
3
EXTENSION TELEPHONE TERMINAL
IP CENTREX NETWORK

FIG. 2

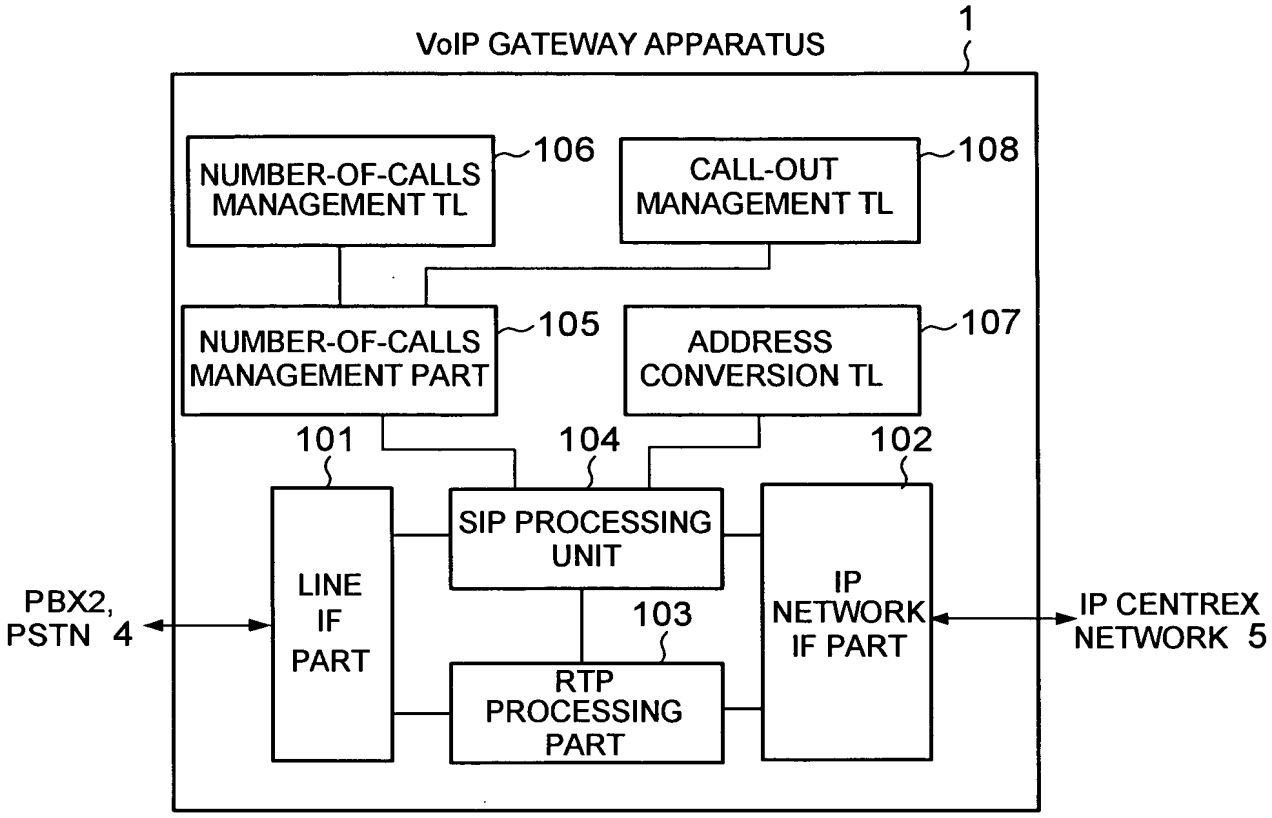


FIG. 3

ADDRESS CONVERSION TL 107

1071 TELEPHONE NUMBER	1072 IP ADDRESS
5000	162.123.123.100
5001	162.123.123.100
5002	162.123.123.100
4000	162.123.123.110
4001	162.123.123.110
4002	162.123.123.110
3000	162.123.123.110
3001	162.123.123.110
3002	162.123.123.110
3003	162.123.123.110

FIG. 4

NUMBER-OF-CALLS MANAGEMENT TL 106

1061	1062	1063	1064	1065
TELEPHONE NUMBER	SIMULTANEOUS CONNECTION TOLERANCE NUMBER	CURRENT SIMULTANEOUS NUMBER-OF-CALLS	CALL-OUT SIMULTANEOUS CONNECTION TOLERANCE NUMBER	CURRENT CALL-OUT SIMULTANEOUS CONNECTION NUMBER
5000	3	1	1	0
5001	5	2	2	1
5002	5	2	2	2

FIG. 5

CALL-OUT MANAGEMENT TL 108

1081	1082	1083
CALLING NUMBER	CHANNEL	SPEECH PARTNER
5000	**	***.***.***
5000	**	***.***.***
5001	**	***.***.***

FIG. 6

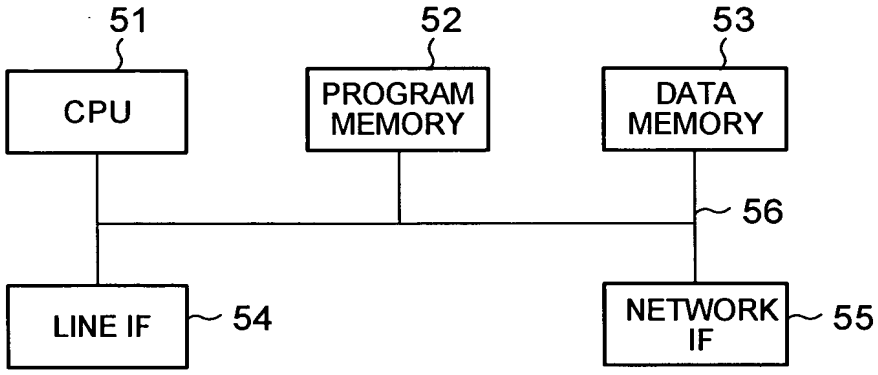

51
52
53
CPU
PROGRAM MEMORY
DATA MEMORY
56
LINE IF
54
NETWORK IF
55

FIG. 7

CALL-IN/CALL-OUT CONTROLLING PROCEDURE

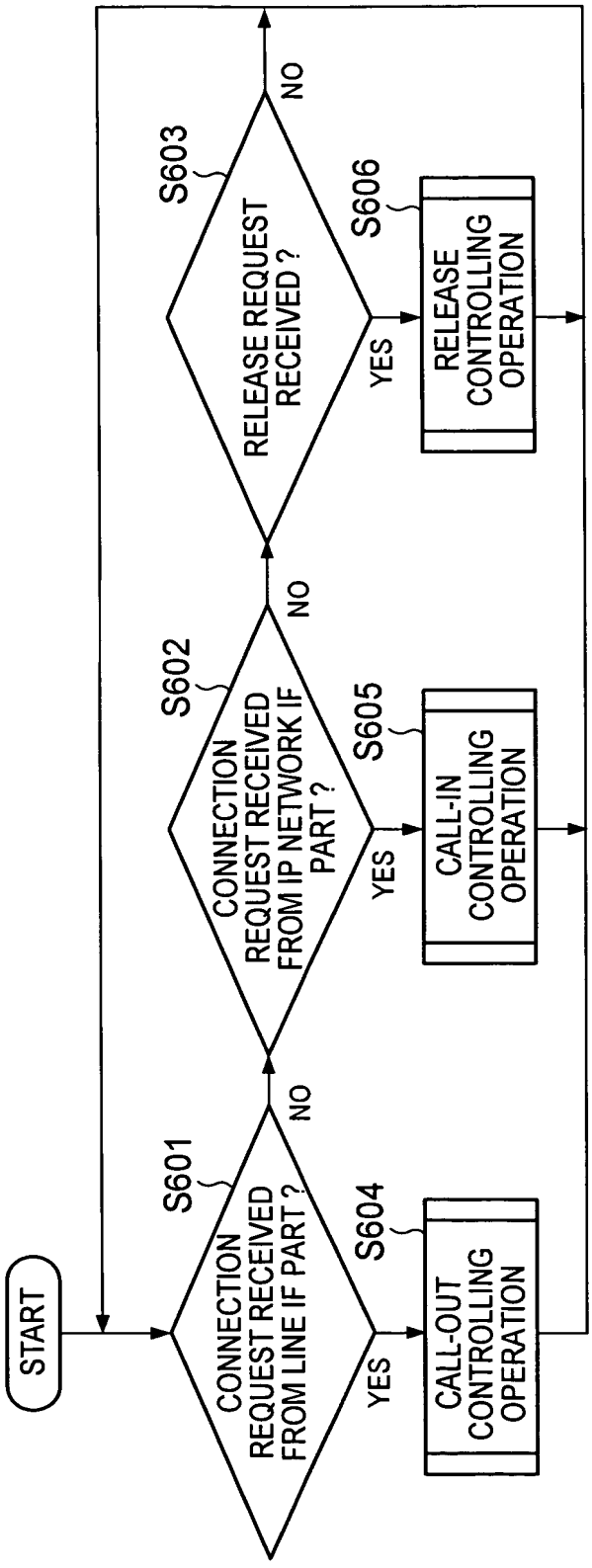


FIG. 8

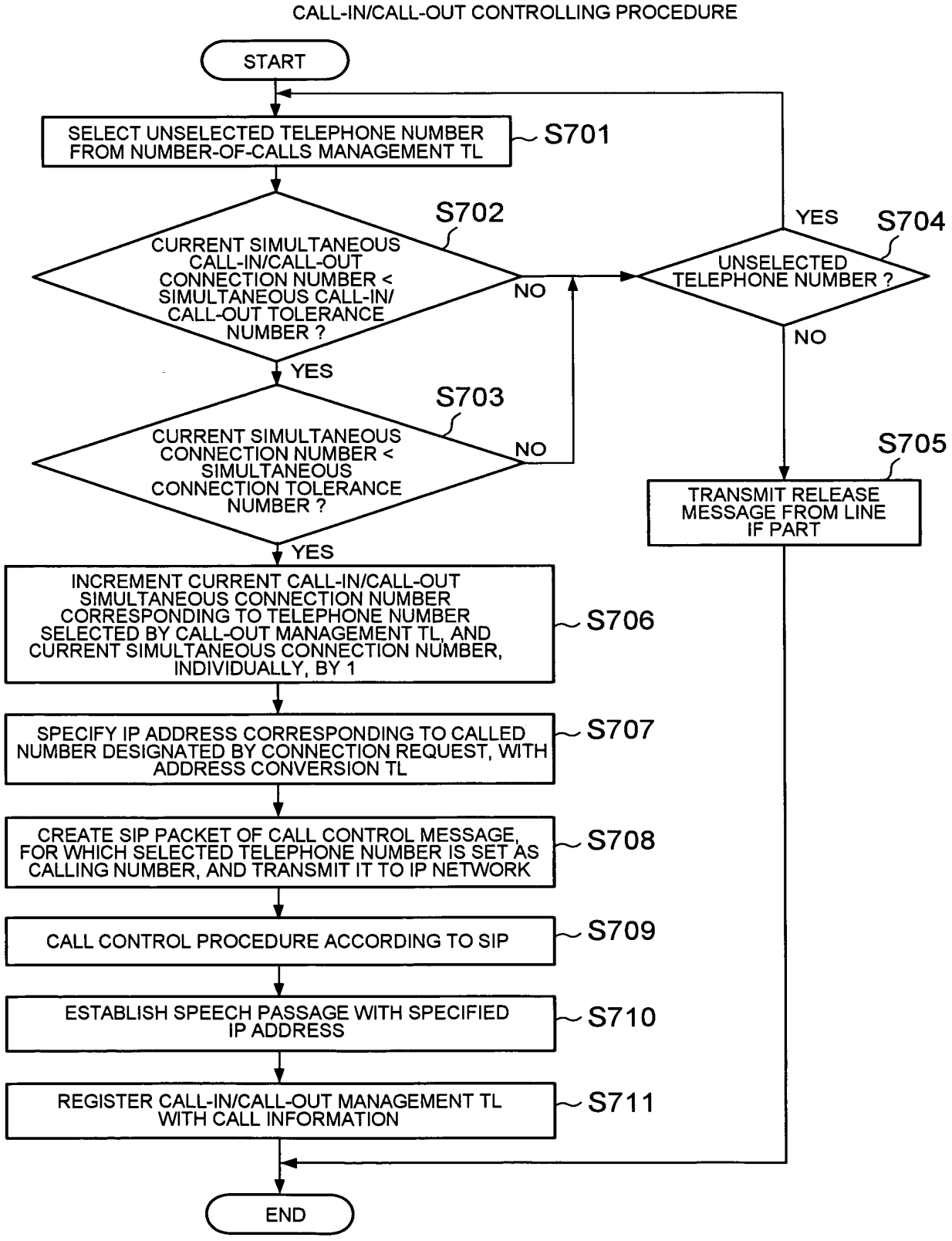

CALL-IN/CALL-OUT CONTROLLING PROCEDURE
START
SELECT UNSELECTED TELEPHONE NUMBER FROM NUMBER-OF-CALLS MANAGEMENT TL
S701
S702
CURRENT SIMULTANEOUS CALL-IN/CALL-OUT CONNECTION NUMBER < SIMULTANEOUS CALL-IN/ CALL-OUT TOLERANCE NUMBER ?
NO
YES
S704
UNSELECTED TELEPHONE NUMBER ?
YES
NO
S703
CURRENT SIMULTANEOUS CONNECTION NUMBER < SIMULTANEOUS CONNECTION TOLERANCE NUMBER ?
NO
YES
S705
TRANSMIT RELEASE MESSAGE FROM LINE IF PART
INCREMENT CURRENT CALL-IN/CALL-OUT SIMULTANEOUS CONNECTION NUMBER CORRESPONDING TO TELEPHONE NUMBER SELECTED BY CALL-OUT MANAGEMENT TL, AND CURRENT SIMULTANEOUS CONNECTION NUMBER, INDIVIDUALLY, BY 1
S706
SPECIFY IP ADDRESS CORRESPONDING TO CALLED NUMBER DESIGNATED BY CONNECTION REQUEST, WITH ADDRESS CONVERSION TL
S707
CREATE SIP PACKET OF CALL CONTROL MESSAGE, FOR WHICH SELECTED TELEPHONE NUMBER IS SET AS CALLING NUMBER, AND TRANSMIT IT TO IP NETWORK
S708
CALL CONTROL PROCEDURE ACCORDING TO SIP
S709
ESTABLISH SPEECH PASSAGE WITH SPECIFIED IP ADDRESS
S710
REGISTER CALL-IN/CALL-OUT MANAGEMENT TL WITH CALL INFORMATION
S711
END

FIG. 9

CALL-IN CONTROLLING PROCEDURE

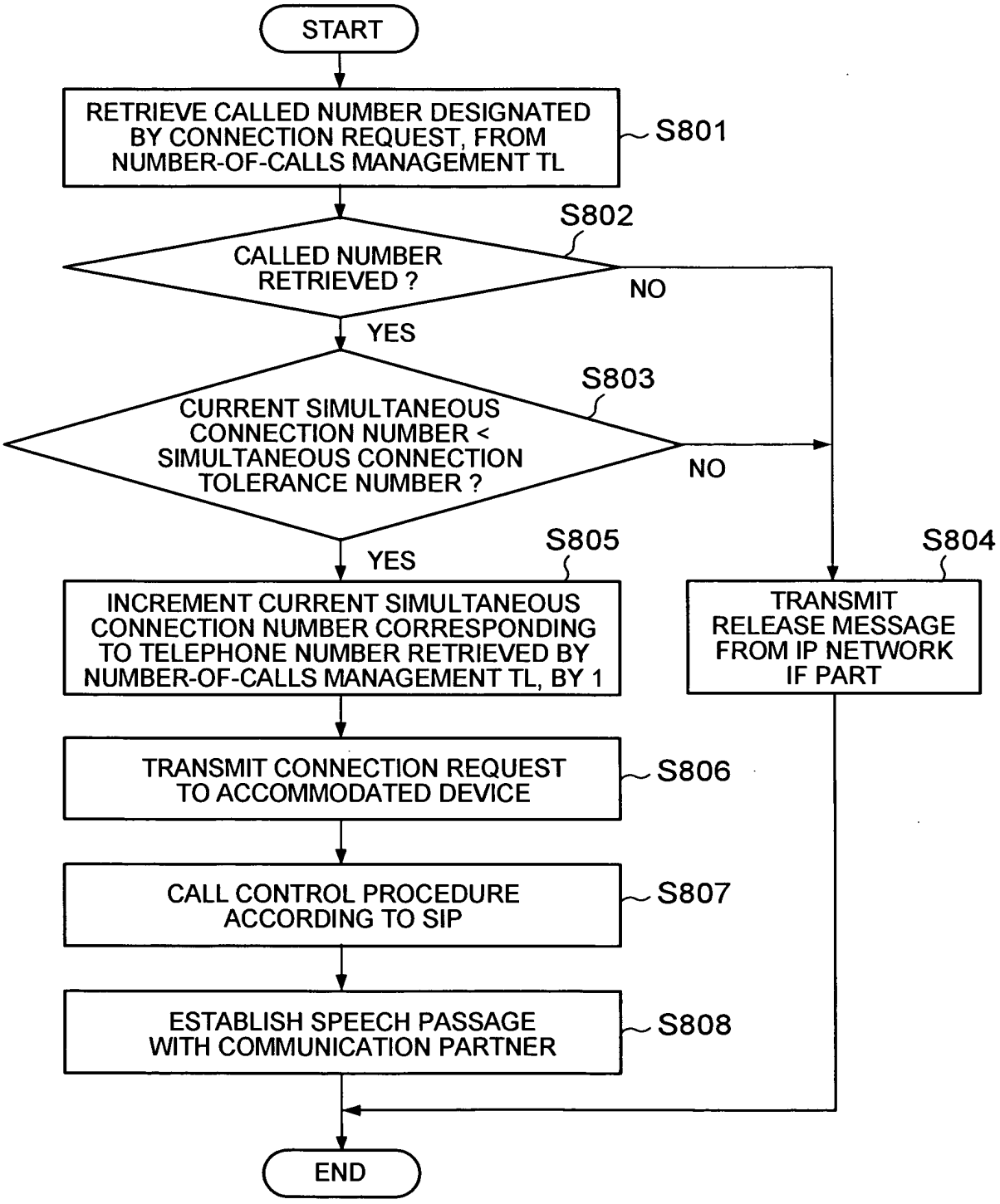
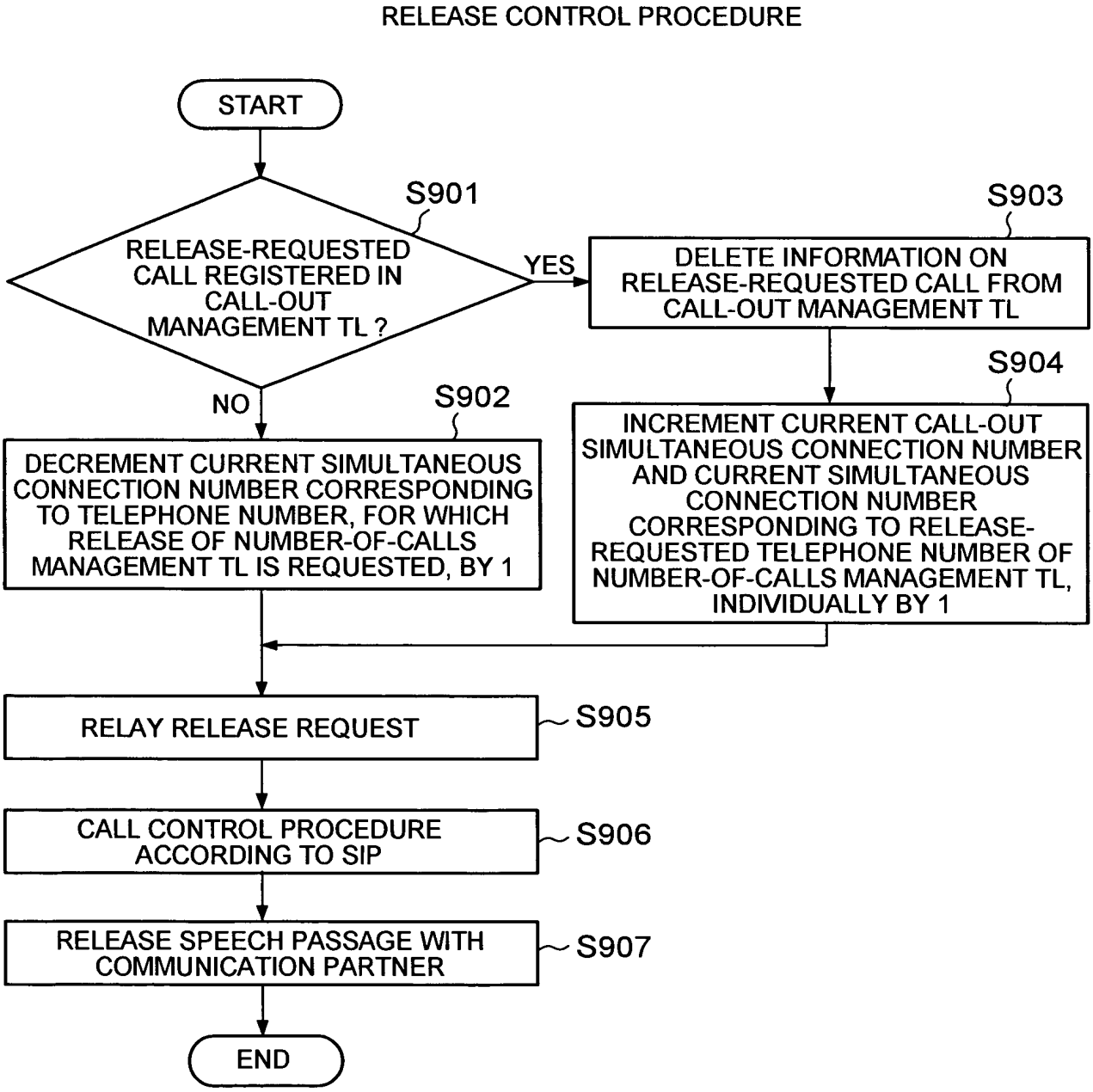


FIG. 10


RELEASE CONTROL PROCEDURE
START
S901
RELEASE-REQUESTED CALL REGISTERED IN CALL-OUT MANAGEMENT TL ?
YES
NO
S903
DELETE INFORMATION ON RELEASE-REQUESTED CALL FROM CALL-OUT MANAGEMENT TL
S904
INCREMENT CURRENT CALL-OUT SIMULTANEOUS CONNECTION NUMBER AND CURRENT SIMULTANEOUS CONNECTION NUMBER CORRESPONDING TO RELEASE-REQUESTED TELEPHONE NUMBER OF NUMBER-OF-CALLS MANAGEMENT TL, INDIVIDUALLY BY 1
S902
DECREMENT CURRENT SIMULTANEOUS CONNECTION NUMBER CORRESPONDING TO TELEPHONE NUMBER, FOR WHICH RELEASE OF NUMBER-OF-CALLS MANAGEMENT TL IS REQUESTED, BY 1
RELAY RELEASE REQUEST
S905
CALL CONTROL PROCEDURE ACCORDING TO SIP
S906
RELEASE SPEECH PASSAGE WITH COMMUNICATION PARTNER
S907
END